



Seabasing

A Joint Force Enabler

In Area-Denial and Anti-Access Environments

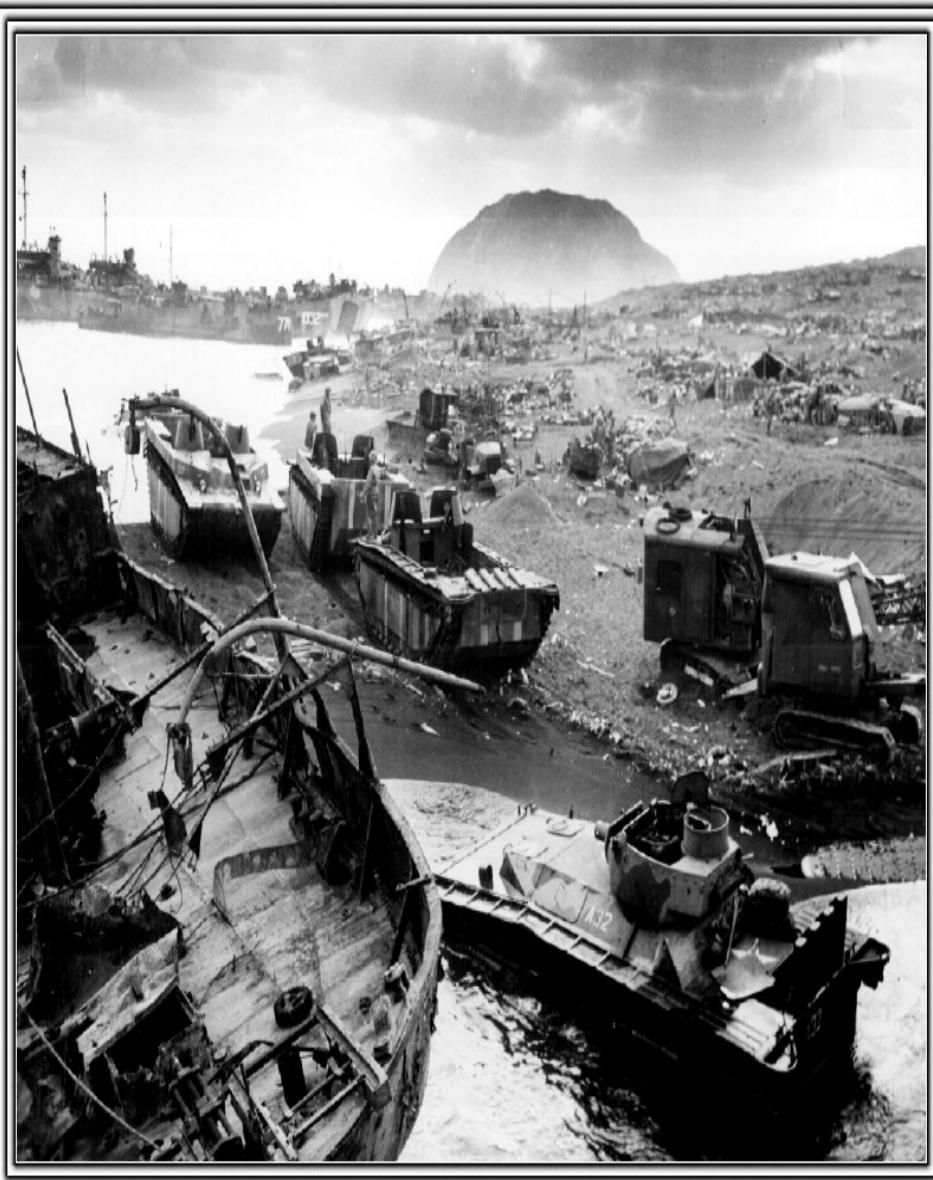


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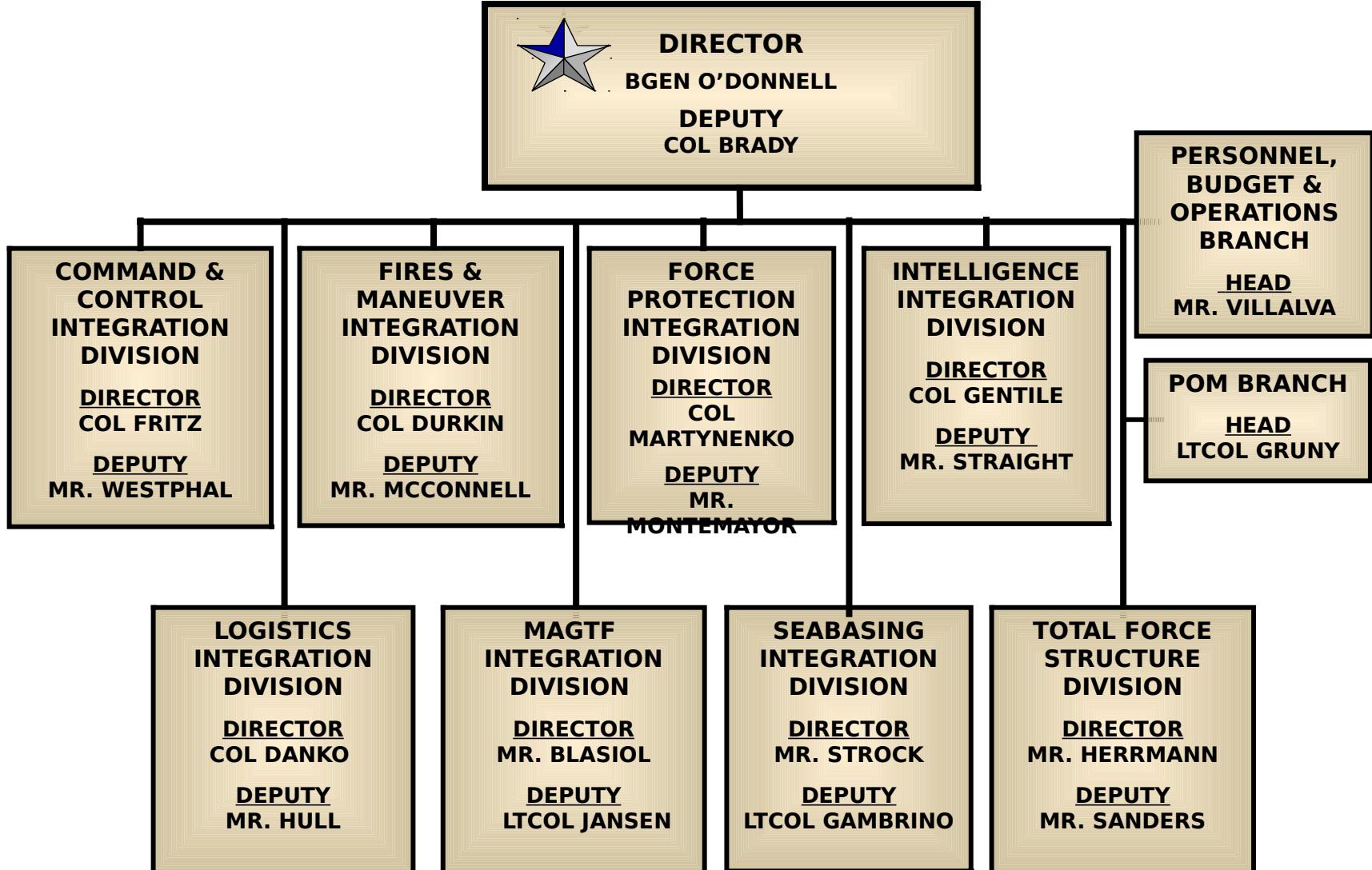
Agenda

- **Organization**
- **Sea basing-Seabase**
- **The Marine Expeditionary Brigade (MEB)**
- **Maritime Expeditionary Capabilities**
 - Assault Echelon
 - MPF(F)
 - Connectors
- **MEB**
- **MPF(F)**
- **Enablers**
- **Experimentation**





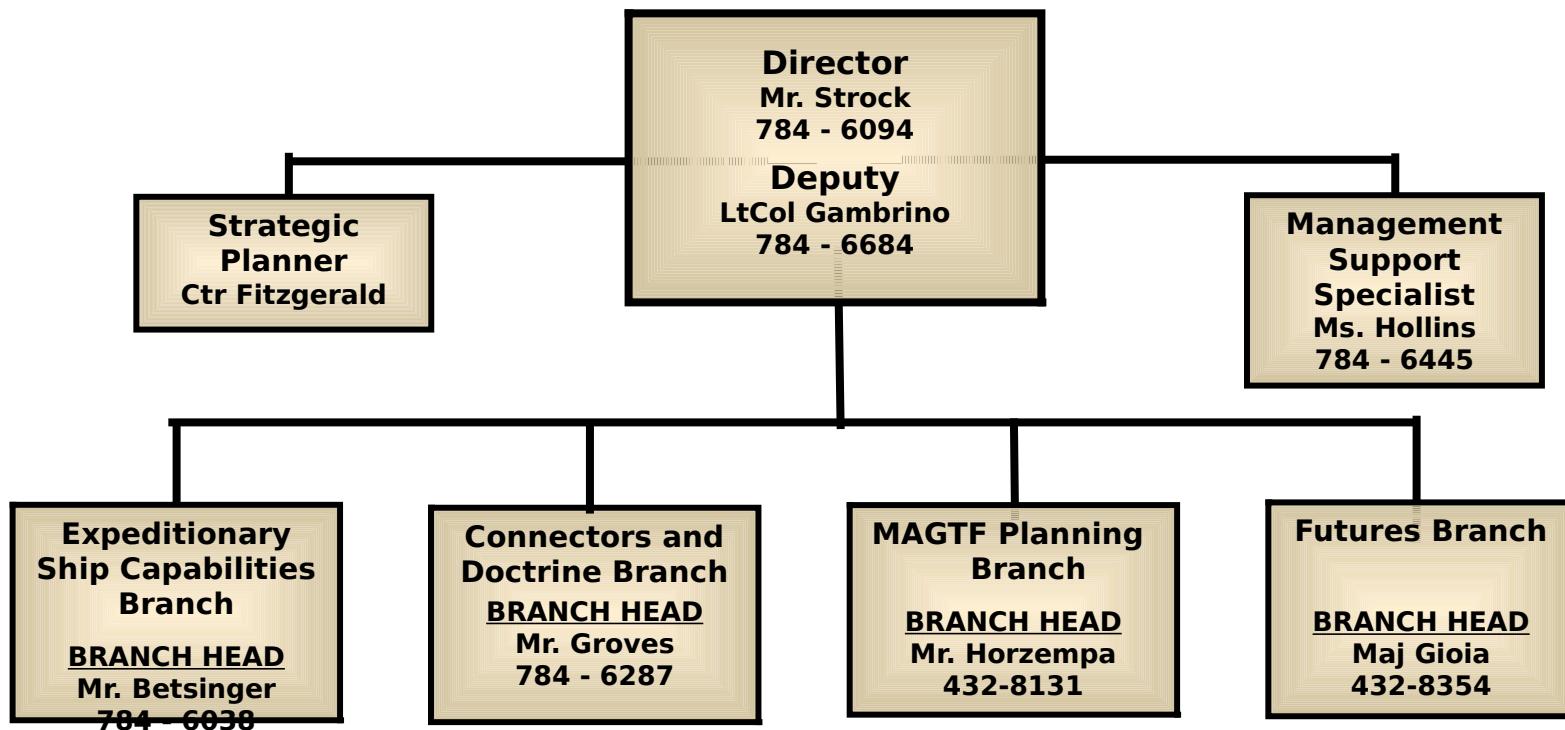
Combat Development Directorate





Seabasing Integration Division

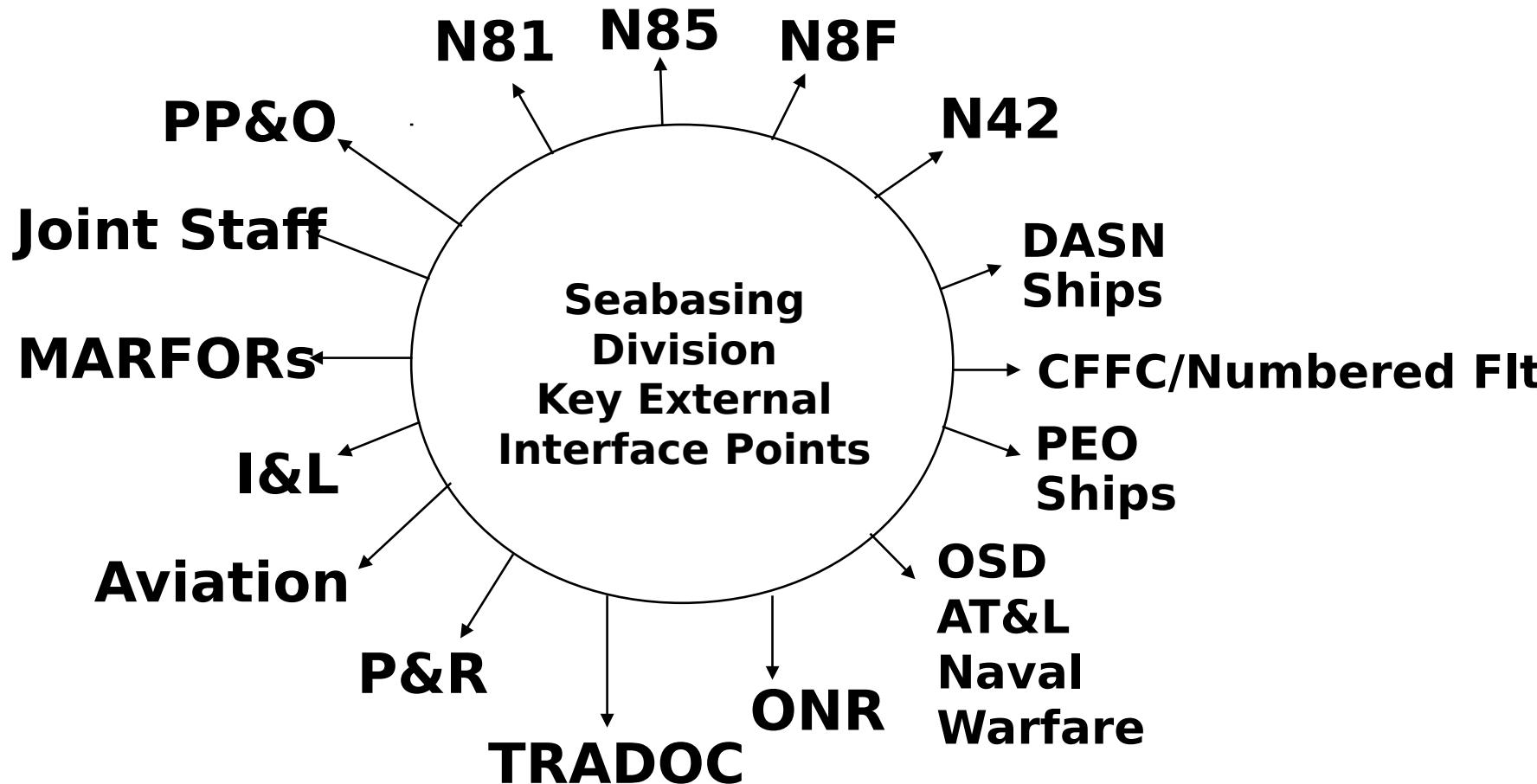
Mission: Develop future Marine Corps expeditionary maritime requirements; ensure OPNAV resource sponsor/s understand and accurately convey these requirements. Represent the Deputy Commandant for Combat Development & Integration on all Seabasing platform matters. Ensure the Marine Corps is fully supported by the Navy's Long-Term Plan for Shipbuilding (30-year plan) and capable of completing Title 10-mandated amphibious warfighting functions.





Seabasing Integration Division

Key Interface Points





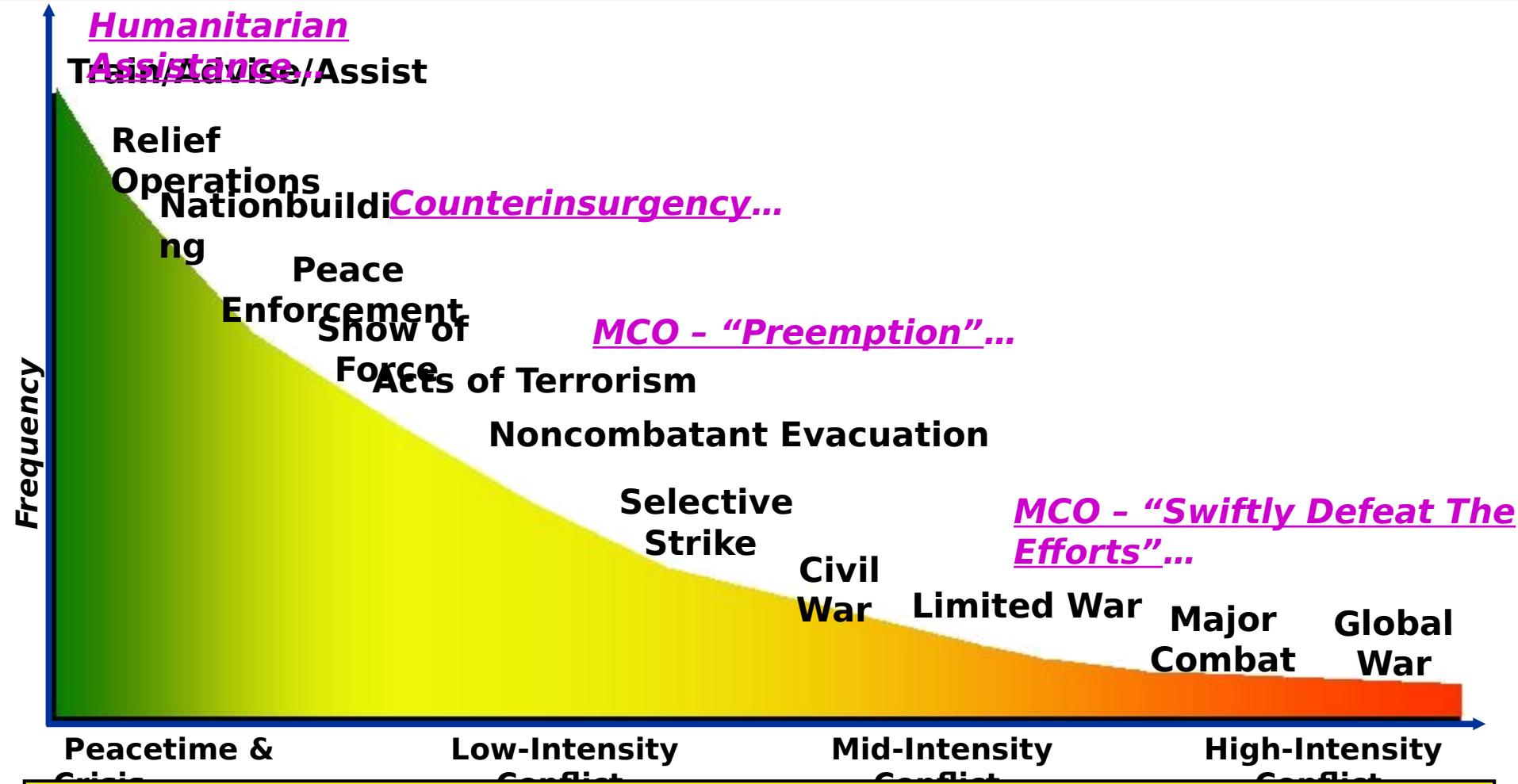
Seabasing

- **National capability for global force projection**
 - Exploits sea as maneuver space 365 days a year
- **Enables capabilities of Coalition/Joint Forces**
- **Maximizes the effects of forward presence**
- **Reduces dependence on vulnerable land bases, “steps lightly” on allies and partners**
 - Increased options for the President

“Our forces in the next century must be agile, lethal, readily deployable... We must be able to project our power over long distances, in days or weeks, rather than months”
President G.W. Bush



Joint Seabasing: Scalable and Responsive Power Projection



Seabasing will provide...the capability to dissuade a potential adversary... and, if necessary, project joint combat power within reduced timelines... with operational independence of HNS...SECNAV, March 05



Today's Capability

Improved Navy Lighterage System

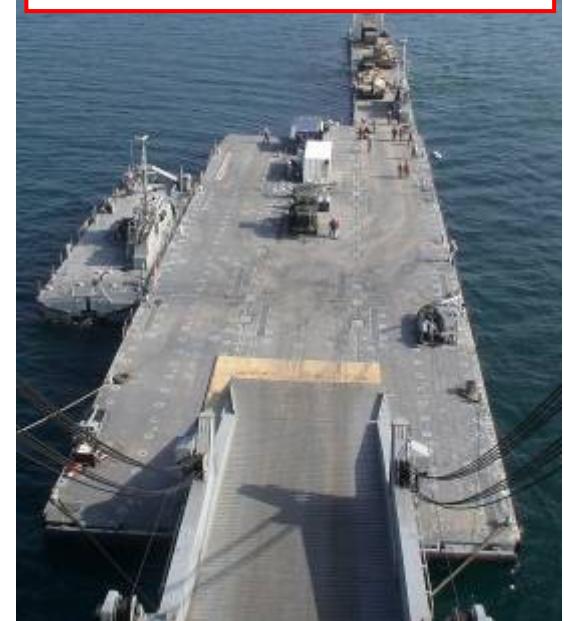


Legacy MPF



Surge Amphibs at Sea

Roll on/Roll off Discharge Facility (RRDF)



High Speed Vessel



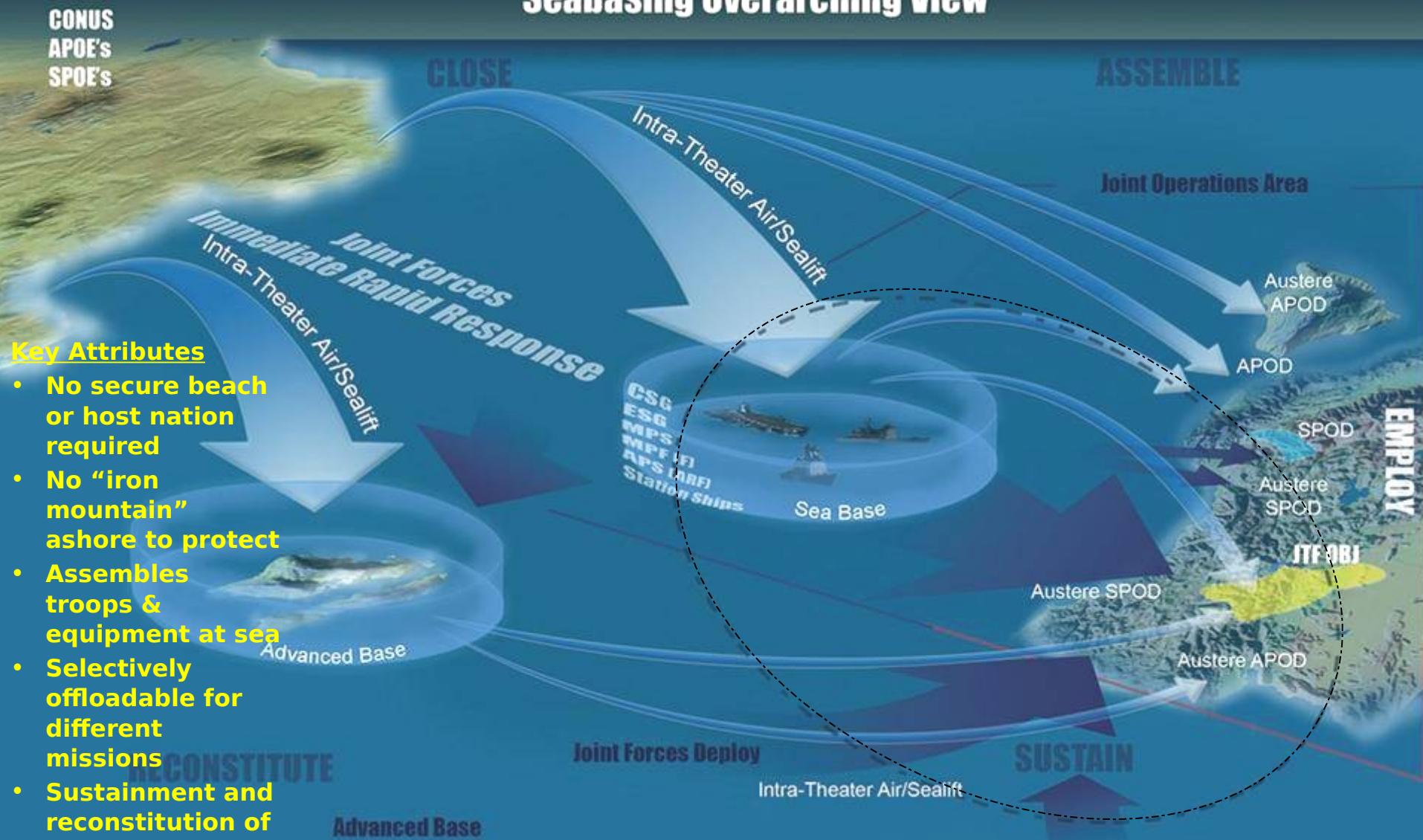
LCAC



Tomorrows Capabilities

Sea basing

Seabasing Overarching View





What's in the Seabase?



**Carrier Strike
Group**

**Expeditionary
Strike Group**



**Maritime
Prepositioning
Group**



**Combat
Logistics Force
Ships**

**Coalition Force
and Sister Service
Ships**



**Task organized forces
to meet
COCOM mission
requirements**

Connectors



***Seabasing is more than just
MPF(F)...***



Deploy as a MEB to fight as a MEF

How we fight

- MCO requires MEF (3.0 MEB's) level forcible entry

Echelonnement of the force is a mitigation strategy for reducing the risk associated w/AE lift shortfall

- Echelonnement

AE: 2.0 MEB (Amphibious Ships)
(Rein): 1.0 MEB (MPF(F))
(Reinforcing)

MCRP; (Rein), includes the forward phasing of additional forces...forming a larger MAGTF from smaller initial forces whereby a single MAGTF is expanded...through the addition of personnel, equipment, and organizations by sea/or airlift...can be used to combine multiple MAGTF's.

AFOE: Remaining assets of the MEF w/sustainment (Surge Shipping with RBE of two MEBs)

Definitions

MPF(F) is NOT AFOE but necessary to complete the MEF

and **Assault Echelon (AE)** - "...the element of a force provide rapid MEB level reinforcement!" comprised of tailored units and aircraft assigned to conduct the initial assault..."

Assault Follow On Echelon (AFOE) - "Equipment and Supplies required to support and sustain the assault.... normally required in the objective area no later than five days after commencement of the assault landing."

Logment Stabilization - "Support the increasing flow of forces and logistical resource requirements... joint force must rapidly build up combat power in the lodgment...take immediate steps to optimize

MPF(F) Contribution

• Rapid Force closure

• At-sea arrival and assembly of forces

• Employment of Surface and Vertical BLT's

• Selective offload of equipment sets to meet mission

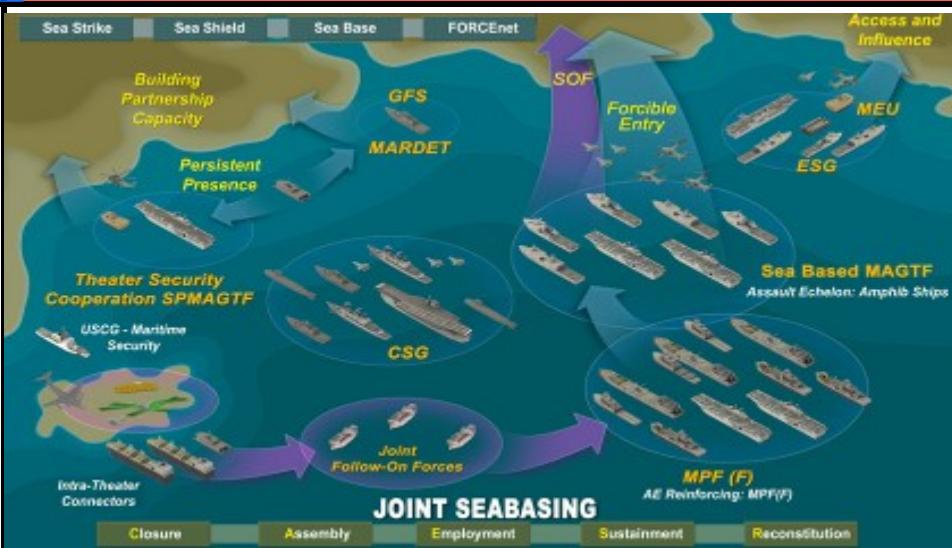
• Persistent sustainment

• At Sea Reconstitution

• Supports forward engagement and forcible entry

• MPF(F) by design is not assault echelon shipping , will not count as AE Shipping; therefore, MPF(F) forces are not forcible entry capable

Concept of Employment



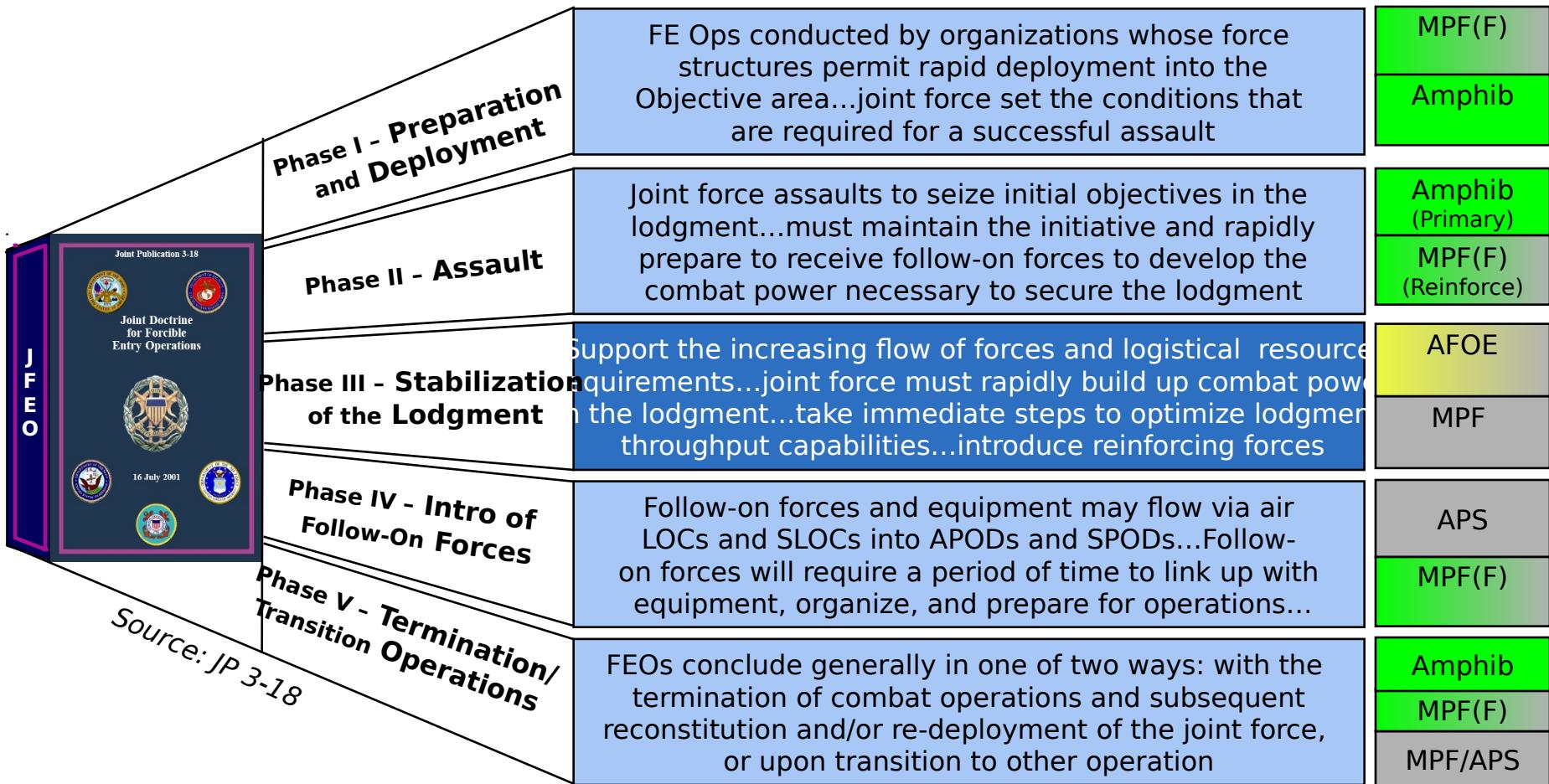
Maritime Expeditionary Capabilities Supporting the Long War

 <p>Phase 0: Shape the Environment.</p> <p>Phase 1: Deter the Enemy</p> <p>Phase 2: Seize the Initiative.</p> <p>Phase 3: Dominate the Enemy.</p> <p>Phase 4: Stabilize The Environment</p> <p>Phase 5: Enable Civil Authority.</p>	<p>This phase involves those joint, interagency and multinational activities conducted on an ongoing, routine basis to assure or solidify friendly relationships and alliances and/or deter potential adversaries.</p>	MPF(F)
	<p>This phase focuses on deterring specific opponents by demonstrating the capability and resolve to apply force in pursuit of U.S. interests. These actions will likely build upon Phase 0 activities and may include a show of force or initiatives that would facilitate deployment, employment, and sustainment of additional forces within the region.</p>	Amphib
	<p>Hostilities commence during this phase. Combat power is applied to delay, impede, halt, or dislodge the adversary as well as to gain access to theater infrastructure and enhance friendly freedom of action. Concurrently, assistance is provided to relieve conditions that precipitated the crisis in order to promote stability.</p>	MPF
	<p>The focus during this phase is on the exploitation, pursuit, and destruction of the enemy in order to break the opponent's will for organized resistance. Stability operations will also be conducted as needed to facilitate transition to the next phase.</p>	Amphib (Primary)
	<p>The priority during this phase will be on stability operations, the reconstitution of infrastructure, and the restoration of services. This phase concludes with the transfer of regional authority to a legitimate civil entity.</p>	MPF(F) (Reinforce)
	<p>Legitimate civil authorities are enabled in their efforts to provide essential services to the populace. These activities include required coordination activities by U.S. military forces with multinational, interagency, and non-governmental organizations while promoting a favorable attitude among the populace toward U.S. and host nation objectives.</p>	AFOE
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*Agility *Deployability *Self-sufficiency *Adaptability

*Interoperability

Maritime Expeditionary Capabilities Supporting JFEO



MPF(F) Contributes/Enhances Rapid Build-up Ashore



Key Capability Attributes

- **Amphibious Warfare Ships**

- Assault Echelon shipping; capability to cohesively employ surface and vertical AE elements/units in anti-access environment
- Built to MILSTDs, Inherent survivability, self-defense, and Navy crewing to support maritime forcible entry operations
- Interoperable within a Seabase
- Forward presence, deterrence

- **Maritime Prepositioning Force (Future) (MPF(F))**

- *MPF(F) is not assault echelon shipping; therefore, MPF(F) forces are not forcible entry capable*
- Built to commercial standards, one compartment flooding, system redundancy limited, No self-defense, requires Sea Shield in a non permissive environment, MSC Crew
- Capable of at-sea arrival and assembly of forces; selective offload of equipment sets to meet unique mission requirements for Seabased Ops, including reinforcing a MEF
- Contribute to Forward presence, deterrence and potential capability to support forward engagement requirements by split ops

- **Joint High Speed Vessel (JHSV)**

- Aluminum hull, commercial car ferry (non-developmental) technology
- Not suitable for operations in anti-access environment
- Minimum aviation/C2 capability



Amphib and MPF(F)

Organization for Deployment and Employment

Amphibious MEB (14,484)*			MPF(F) MEB (14,484)*				
Aboard Amphibious Ships	Assault Echelon (AE) 10,055*	Assault Element	All MEB Equipment Prepositioned Afloat	Sea Base Maneuver Element (SBME)	Selective Offload		
		Assault Support Element		Sea Base Echelon (SBE) 8,679*			
	Forward Base Echelon 2,419*	Forward Base Echelon (FBE) 1,907*		Sustained Operations Ashore Echelon (SOAE) 3,898*			
Other Shipping	Assault Follow-on Echelon (AFOE) 2,010*	Amphibious Ships provide Forcible Entry Capability		MPF(F) Provides Rapid Reinforcement and Sustainment			
		* NSE Not Included					



Lift Requirement

MAGTF Combat Systems

DRAFT

10 March 2005



Eagle Eye UAV

UAV Block 1 (Eagle Eye) provides electronic observation, IR and Air-ground radar.



UH-1Y

Supports 8 combat loaded troops with a crew of 4. Maximum payload: 3020 lbs. Long range cruise: 125 lbs. Maximum Continuous Power speed: 158 lbs. Mission radius: 130nm with a 210lb payload. Maximum endurance: 3.3 hrs.



AH-1Z(W)

AH-1Z: 6tx weapons stations, long range cruise is 134 km., dive speed: 222 km., mission radius: 125 km with a 250lb payload. Maximum Continuous Power speed: 155 lbs. Maximum endurance: 3.3 hrs.



MV-22

MV-22 (Osprey): Self deploy up to 2100 nm with one refueling. Speed: 240 lbs. Capable of external loads of 10,000 lbs (HMMWV).



HLR

HLR (CH-53X): Capable of 27,000 lbs. to 110nm. Haul MV-22 loads for sustainment.



Joint Strike Fighter

Joint Strike Fighter (STOVL), operates from L Class/CV and austere sites. Combat radius is 450 nm, air to air, and air to ground capable.



CLAWS

Rapidly deployable, all-weather, short/air defense. Counter cruise missile, field and rotary wing aircraft.



JPADS

Highly accurate, submunitionary guided, able to deliver fully rigged bombs weight from 250lbs up to 1000lbs. Being developed to reach a fully rigged bombs weight of 10,000bs. Capable to deliver multiple bombs in multiple destinations from one aircraft or multiple aircraft.



Dragon Runner

Small, four-wheeled, non-portable mobile ground sensor designed to increase situational awareness by providing observation of tactical objectives and potential danger areas beyond line of sight while human access is impractical or unacceptable.



Gladiator

Unarmed multipurpose weapon and landing platform capable of launching the AFOBS, AGM-114 and M400 Machine Gun. Future uses payload may include non-lethal weapons, communications relay, re-supply, casualty evacuation, or nuclear weapon deployment.



ITV

ITV: Internally transportable by MV-22, and CH-53E. The vehicle must be designed so that the weapon systems can be employed 40 seconds upon landing the aircraft and support a 200 lbs payload.



IAV

The Infantry Fast Attack Vehicle is a high mobility weapons platform based on the Mercedes-Benz G-Wagon that provides MEDEVAC and selected reconnaissance units with improved ground mobility.



LWPM

The Lightweight Prime Mover is an air transportable, protected vehicle that fits inside a CH-53 or under the MV-22 aircraft and is capable of towing the M777 howitzer and will accommodate 7-10 battle equipped Marines.



HMMWV(R)

Capacity vehicle in the present HMMWV(R) fleet are being studied. Areas of concern are: armament, power train, suspension, survivability.



MTVR

Medium Tactical Vehicle Replacement is designed to meet a 70% off-road and 30% on-road load transport requirement. Can carry a 7 ton payload cross-country or a 15 ton load on primary and secondary roads.



LVS(R)

Logistics Vehicle System Replacement: Heavy 10 ton transport, capable of 22.5 tons on road, 10.5 tons off road. Capable of handling 180 containers.



FRSS

Employed forward of the surgical company. Rapidly deployable, trauma surgery capable 10 patients/24 hours.



LAV-25

Provides MAGTF with the capability to conduct reconnaissance, security, security of lines, and mobility operations actions. Service Life Extension underway to improve survivability and extend life to 2015.



EFV

MAGTF's primary mobility during amphibious operations and combat operations actions. An armoured and armored amphibious vehicle capable of transporting Marines from sea, ashore to inland objectives.



MEFFV

MEFFV, in concept, will provide the 2015 and beyond MAGTF to complement the capabilities with a family of armored vehicles and armored fighting vehicles of the EKV.



M1A1

MAGTF's heavy armor capability. Features enhanced munitions detection range, recognition, target identification, decreased target engagement sequence time, integrated situational awareness systems.



EFSS

Low, offset 120mm mortar and internally transported vehicle. From variety of locations to greater than 7000 meters. The M26's heaviest indirect fire system.



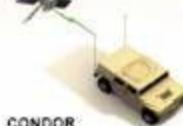
LW155

155mm towed howitzer with GPS/INS-aided navigation and positioning will provide high volume, all-weather, indirect fire to almost 40 kilometers and precision to under three meters. It will fire US 155mm artillery ammunition.



HIMARS

Wheelized rocket launcher system capable of firing rockets and missiles in the Multiple Launch Rocket System Family of Munitions to ranges greater than 40 kilometers.



CONDOR

The Command and Control On-the-move Network: Digital Over the Internet Radio (DONDR) Capability. DONDR supports the Command and Control (C2) functional area and will enable forces to maintain data network connectivity beyond line of sight.



IISR

The Integrated Info Squad Radio (IISR) is a next generation, personal radio node, sustainable, wireless command and control system that enables the friendly squad leader to communicate with his team leaders in complex terrain.



ECCS

The Expedited Command and Control System (ECCS) is a MANET transportable and enables the MAGTF Commander of an advanced force to rapidly command and control friendly forces, database connectivity to analyze situation awareness picture by filtering data theater and once in the Area of Operation.



TSM
The Transition Switch Module (TSM) provides a flexible, Low-Level Switch capability, using commercial technology to interface with the TAD and TDZ, forming the communications backbone for MAGTF tactical data systems and Defense Message System (DMS).



TDN
The TDN augments the existing MAGTF communications infrastructure to provide the MAGTF commander an advanced force with a low-level switch capability, forming the communications backbone for MAGTF tactical data systems and Defense Message System (DMS).



Transformational Communication System
Integrated network-centric SATCOM system architecture. Under the oversight of the Transformational Communication Office (TCO), the Advanced Extremely High Frequency (AEHF) communications system, the Advanced Tactical Data System (ATDS) and the Transformational Data System (TDS) will be interconnected to form an integrated, robust, survivable system of systems for the warfighter and protected users, significantly increasing SATCOM capacity and utility.



JTRS

The Joint Tactical Radio System (JTRS) Family of Radios will be interoperable with legacy communication systems and capable of growth for new requirements and technologies. Enabling the tactical extension of the Transformational Communication Architecture (TCA) to access the services of the Global Information Grid (GIG).



MCEITS

MCEITS is the Marine Corps' contribution to meeting DoD Net-Centric Environment and combat system requirements. MCEITS will provide the Marine Corps to leverage the planned capabilities of Joint and DoD programs such as the Global Information Grid (GIG) and Network-Centric Enterprise Services (NCES).



MCEN

The Marine Corps Enterprise Network (MCEN) is the Marine Corps Component of FORCE21 and the Global Information Grid (GIG). MCEN is our enterprise framework for IT and supports all information exchange requirements for Marine warfighters and our supporting establishment.



MAGTF C2

MAGTF C2 will deliver an "end-to-end" fully integrated, cross-domain MAGTF command and control capability. System development of current C2 programs that include JOC, C4CS, C2C, C2C2, C2P, C2P2, C2R, C2R2, and C2S will be merged into a single, integrated, and compact design air, ground, and surface officer command and control (C2) data architecture.



Baseline MEB Aggregate Lift Requirement



2015 MEB Lift Profile						
						Comment
Personnel	Total	SBE	FBE	SOAE		
	14,484	8,679	1,907	3,898		
RO-RO Stowage	Square Feet	Short Tons				
Vehicles	467,520	12,482				
Outsized Cargo	52,136					
Aircraft	Quantity	Short Tons¹	CH-46 Eq			
MV-22	48	1,146	106.6			
CH-53K	20	496	53.6			
AH-1Z	18	136	16.7			
UH-1Y	9	64	8.3			
UAS	8	13	7.0			
F-35B J SF	30	679	62.7			Not Sea Based with MPF(F)
KC-130J	12	0	0.0			Not Sea Based with MPF(F)
EF-18G	5	0	0.0			Not Sea Based with MPF(F)
Totals	150	2,535	255			
Cargo	Cubic Feet	Short Tons	Gallons²			J MICs³
			Water	J P-5	MOGAS	
	2,853,450	78,633	2,597,216	9,556,889	76,632	78,891

Notes:

1. Source: Draft NAVAIR Report No: NAVAIR/6.7-2005/XX. Not counted with cargo.
2. Bulk liquid lift requirement remains at 20 DOS values. 45 DOS calculations: 17,743,629 Gal of J P-5 (Air = 12,502,853; Ground = 240,776) and 99,985 gal of MOGAS, plus 3,906,662 gal. of water.
3. J MICs derived from cubic feet (~33.7 cuft based on internal dimensions of 51.15" L x 41.15" W x 34.57" H with 20% BSF) for Classes I, II, III, IV, V, VI, VII, VIII, IX, X, and Misc Class II/VII. All Class V derived from weight (1,750 lbs per J MIC).

Data Source: 2015 Baseline MEB Equipment Density List and 2015 Baseline MEB Sustainment Study.

78,891 J MICs =
4,931 TEUs



Marine Corps Expeditionary Ship Capabilities



Assault Echelon Shipping

Minimum MEB AE Lift Requirement (15 Ships)

- Five LHD-1 (Wasp Class)
- Five LPD-17 (San Antonio Class)
- Five LSD-41 (Whidbey Island Class)



Capabilities

Amphibious Warfare Ships

- Inherent survivability, self-defense, and Navy crewing
- Maritime forcible entry operations
- Forward presence, deterrence

Maritime Prepositioning Force (Future) (MPF(F))

- Capable of at-sea arrival and assembly of forces
- Selective offload of equipment sets to meet Seabasing mission requirements
- Supports forward engagement and forcible entry Reinforcement
- ***MPF(F) by design is not assault echelon shipping; therefore, MPF(F) forces are not***

MPF(F) Program Platforms

2 T-LHA(R)



3 MLP



1 T-LHD



3 T-AKE



3 T-AKR



2 Legacy T-AK



Expeditionary Capabilities

Amphibious Warfare Ships

- 2.0 MEB AE per Strategic Planning Guidance; 15 Ao Ships per MEB AE
- Total 30 operationally available ships
 - 10 LHD/LHA(R)
 - 10 LPD-17
 - 10 LSD-41/49 (or equivalent replacement)
 - Average availability is 85% (for planning purposes)
 - Minimum 11/11/11 ships to meet 30 Ao requirement

Maritime Prepositioning Force (Future)

- One squadron

Legacy Maritime Prepositioning Squadrons

- Retain two squadrons to maintain afloat prepositioning capacity



Amphibious Shipping

Platforms	Platforms
<p>LHA-1 (Tarawa Class) (Last Decom FY18) LHD-1 (Wasp Class) (Last Decom beyond FY35) LHA-6 (Tarawa Class Rep) LH(X) (Wasp Class Rep) LPD-4 (Austin Class) (Last Decom FY13) * LPD-17 (San Antonio Class) LSD-41 (Whidbey Island Class) (Last Decom FY31) LSD-49 (Harpers Ferry Class) (Last Decom FY31) LCC-19 (Blue Ridge Class) (Last Decom FY16)</p> <p>* Functionally replace LPD-4, LSD-46, LKA 113, and LST 1179 and LCC Ship classes</p>	<p>New Build Assault Echelon Shipping</p> <ul style="list-style-type: none">• LPD-17• LHA(R)• LH(X)• LSD(X)• LCC(R) <p>Amphibious Lift Enhancement Prog (ALEP)</p> <p>Assault Follow On Echelon (Shipping)</p> <ul style="list-style-type: none">• T-AVB, etc.
<p>Amphibious Warfare Ships</p> <ul style="list-style-type: none">• Inherent survivability, self-defense, and Navy crewing• Assault echelon shipping; capability to cohesively employ surface and vertical AE elements/units in anti-access environment• Maritime forcible entry operations• Forward presence, deterrence <p>Expeditionary Requirements</p> <ul style="list-style-type: none">• 2.0 MEB AE per Strategic Planning Guidance; 15 Ao Ships per MEB AE (minimum).	<p>Issues</p> <ul style="list-style-type: none">• Total 30 operationally available ships (POR is 9/9/12)<ul style="list-style-type: none">- 10 LHD/LHA(R)- 10 LPD-17- 10 LSD-41/49 (or equivalent replacement)- Average availability is 85% (for planning purposes)- <u>Minimum</u> 11/11/11 ships to meet 30 Ao requirement• Weight and Stability of ships as Forces grow (see slide 10)



Amphibious Assault Ship Replacement

LHA-6/9

Preliminary Design Platform	Description
LHA-6 	Displacement, Full (LHD) 44,971 lt Speed 22.2 kts Length 844 ft Beam 106 ft Draft 28.82 ft (Full Load) Crew 102 Officers; 78 SNCO; 1024 Enlisted Marine Detachment 1,687 troops; 184 surge Med Capability 2 Med OR; 24 Ward Surface Interface Well 0 Flight Deck 9 CH-53K Spots Elevators 1 Port (37 1/2 t); 1 Starboard (37 1/2 t) Hangar Bay / High Bay 30,542 ft ² / Two 7 Frame High Bay (49 ft) Vehicle Square 19,112 ft ² Cargo/Ammo Cube 145,963 ft ³ Cargo Fuel (JP-5) 1,300,000 gal Issues
Program Status	<ul style="list-style-type: none">LHA 6 Class (LHA(R) Flight 0), a transformational ship to replace the LHA 1 class of amphibious assault ships.<ul style="list-style-type: none">Will have the flexibility to operate in the traditional role as the flagship for an ESG as well as to support the Assault Echelon of a MEF; provides the flexibility to operate and be a vital part of the Sea Base.Program to enhance amphibious aviation capability-meet increased demand created by JSF-MV22.<ul style="list-style-type: none">Compliments the MEU, 1:1 Future composite ACE (6 F-35B, 12 MV-22B, 4 CH-53K, 4 AH-1Z, 3 UH-1Y, and 2 MH-60 SAR)Or a JSF platform to host 22 F-35B aircraft.LHA-6 planned w/o well-deck, contract awarded June 07; Milestone B ADM Feb 06; start FAB Nov
	<ul style="list-style-type: none">LHA-9 design decision (RIC & Well Deck) pending based upon design for LHA-7 FY10 ship intended for the MPF(F) big deck.Expeditionary Role as Amphibious Warfare Ship to support the Strategic Planning Guidance and provide the Operational Availability (Ao) to support 2.0 MEB Assault Echelon; Naval Shipbuilding Plan projects 9 Big Decks (7 LHDs & 2 LHA(R)s in FY22. This is in contradiction to USMC requirement for 11 AE Big Decks.ESC will support CONOPS refinement during Spring 08.



Amphibious Transport Dock

LPD-17 San Antonio Class



Platform	Description
LPD-17 	Displacement (Full) 24,900 lt Speed 24.5 kts Length 684 ft Beam 105 ft Draft 23.0 ft (Full Load) Crew 360 Sailors /3 Marines Troop Lift 66 Officers; 41 (>E7); 597 (<E6); 95 Surge Med Capability 2 Med OR; 4 Isolation Ward; 24 Bed Wards & Casualty Overflow Surface Interface Well 1 (2 LCAC or 1 LCU); 14 EFV Flight Deck 2 Ops Spots/4 Exp Spots Hangar Bay 1 MV-22 or CH-53K Vehicle Square 25,000 ft ² Cargo Cube 35,000 ft ³ Cargo Fuel (JP5) 215,000 gal Issues
Program Status	

SHIP	Commission	Home	Remarks
LPD 17 San Antonio	14 Jan 06	Norfolk	
LPD 18 New Orleans	5 Mar 07	San Diego	
LPD 19 Mesa Verde	15 Dec 07	Norfolk	Accept Trials Success Sep 07
LPD 20 Green Bay	Proj Oct 08	San Diego	New Construction
LPD 21 New York	Proj Oct 09	Norfolk	New Construction
LPD 22 San Diego	Proj Oct 10	San Diego	New Construction
LPD 23 Anchorage	Proj Jan 11	San Diego	Authorized
LPD 24 Arlington	Proj Jul 11	Norfolk	Authorized

- Program of Record is for 12 ships but only 9 are currently funded.
- 9th ship (LPD-25) to be delivered in FY-12
- Based on current and projected lift requirements, USMC may seek to purchase additional ships (10-11)
- Marine Corps requires a 10th and 11th LPD 17 to meet 2.0 MEB of Lift, #2 on USN FY09 unfunded list
- LPD-17 hull form may be used for LCC(R) and LSD(X) platforms based on Navy Single Hull initiative.



Maritime Prepositioning Force (Future)



Platform	Description
<u>2 T-LHA(R)</u> 	<u>3 MLP</u>
<u>1 T-LHD</u> 	<u>3 T-AKE</u>
<u>3 T-AKR</u> 	<u>2 Legacy T-AK</u>

Program Status/Issues	Concept for Employment Forces are
<ul style="list-style-type: none">CDD Incremental Development<ul style="list-style-type: none">1 MLPs and T-AKEs<ul style="list-style-type: none">JCB/JROC/CNO APPROVED2 Big Decks<ul style="list-style-type: none">Begins staffing Jan 08R3B April/May 08JROC Jul/Aug 083 LMSRs - Begins staffing Aug/Sep 2008<ul style="list-style-type: none">R3B Planned Oct 2008Program of Record is for 14 ships last ship FY20IOC (FY17), FOC (FY22)LHD/T-AKs (MSC/MPF) (3) platforms from existing ships	<p>The diagram illustrates the Joint Seabasing Concept, showing the deployment of various maritime assets across the theater. Key components include:</p> <ul style="list-style-type: none">Sea Strike: Represented by a yellow circle.Sea Shield: Represented by a grey circle.Sea Base: Represented by a blue circle.FORCEnet: Represented by a green circle.Building Partnership Capacity: Indicated by arrows pointing to ships.Persistent Presence: Indicated by arrows pointing to ships.GFS: Global Forward Presence.MARDET: Maritime Detachment.SOF: Special Operations Forces.Forcible Entry: Indicated by arrows pointing to ships.MEU: Marine Expeditionary Unit.ESG: Expeditionary Strike Group.Sea Based MAGTF: Marine Air-Ground Task Force.Assault Echelon: Amphibious Ships: Amphibious assault ships.Theater Security Cooperation SPMAGTF: Theater Security Cooperation Marine Air-Ground Task Force.USCG - Maritime Security: US Coast Guard - Maritime Security.CSG: Carrier Strike Group.Joint Follow-On Forces: Indicated by arrows pointing to ships.MPF (F): Maritime Prepositioning Force (Future).AE Reinforcing: MPF(F): Amphibious assault ships reinforcing the MPF (Future).Access and Influence: Indicated by arrows pointing to ships.Indra-Theater Connectors: Indicated by arrows pointing to ships.Closure, Assembly, Employment, Sustainment, Reconstitution: The phases of the joint seabasing process.



Revolution/Evolution

Past

- Operational Capability
- Forward Presence
- 13 Ships in 3 Squadrons
- Each Squadron supports a MEB of 14,400+ Marines
- Proven Force Enabler

Present

- MPF Enhancement
 - 3 additional Ships (1 per sqdn)
 - Additional Capabilities:
 - Naval Mobile Constr. Bn
 - Naval Fleet Hospital
 - Expeditionary Airfield

Future

MPF Future (2015 and Beyond)

- Seabasing



Prepositioning Today and Tomorrow

- **MPF**

- Port-to-port (or in-stream) capability
- Require Host Nation Support (HNS) to close and assemble the force
- Significant lodgment - both APOD and SPOD required in theater
- High force protection bill associated with establishing and maintaining a secure lodgment
- Ships densely packed, assemble ashore



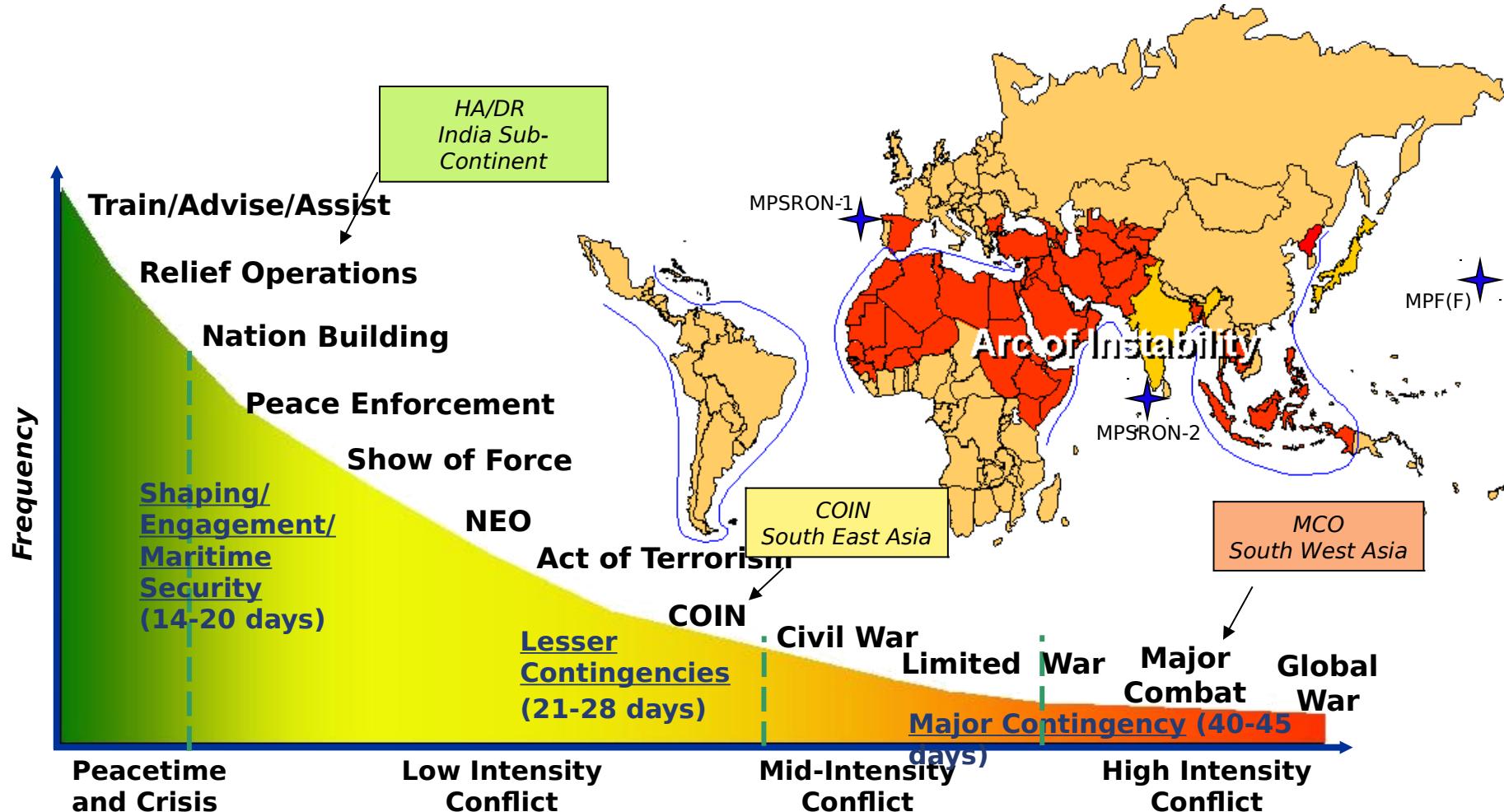
- **MPF(F)**

- Operate in restrictive access environments
- Arrival, assemble and integrate at sea
- Selectively offloadable, tailororable force packages
- Employ combat ready forces from OTH
- Indefinite sustainment from the sea base up to a brigade size force operating ashore
- Reconstitute forces to the sea base for redeployment





MPF(F)'s Geo-Political Applications



**MPF(F) - Responsive and Scalable across the full
“Range of Military Operations”**



MPF(F) Squadron Required Capabilities



- ✓ Preposition the MEB (1 Air and 2 Surface Battalions [selective offload])
- ✓ Close a MEB in 10-14 days
- ✓ At Sea Arrival and Assembly in 24-72 Hours
- ✓ Employ one Surface Battalion and one Vertical Battalion in 8-10 hours
- ✓ Provide accommodations and aircraft/vehicle maintenance capability (O level/selected I level) for a MEB
- ✓ Sustain the forces ashore from the Sea Base
- ✓ Provide Level II (resuscitative surgery) medical support
- ✓ Accommodate and operate organic surface connectors
- ✓ Conduct external operations in Sea State 3 threshold/Sea State 4 objective
- ✓ Provide MEB C2

<u>2015 MEB assumptions</u>		<u>2015 R/W/T/R MEB ACE</u>	<u>Required Squadron Capacity</u>	
11,912	Personnel *	48	MV-22	947,224 RO/RO ft ²
799	HMMWVs	20	CH-53(K)	3,001,747 Cargo ft ³
106	EFVs	18	AH-1	8,808,424 POL ~ gallons
335	MTVRs	9	UH-1	197 CH 46 Equiv
30	M1A1 Tanks	2	H-60 / Aviation Ship	20 Acft operating spots
18	LW 155 Howitzers	8	UAVs	
1,226	Trailers and others			

UNCLASSIFIED

* Includes MEB, NSE, MSC Crew, and Standing



MPF(F) Squadron Composition

2 T-LHA

NEW BUILD



Length: 844 ft	Beam: 106 ft	Draft: 28.2 ft	Displacement: 45K LT
Per Sqd: 2	Speed: ~20 knots		
	Range~9,500 nm		
Crew: 285	Stand Det: 23	MAGTF: 1,490	NSE: ~590 Berths: 3,052
A/C Stow: 55	A/C Op Spots: 9	JP-5: 1.6 Mil gal	Water: 400k Gal/200K gal Per day
Sqft: 11,600	CuFt: 160, 000	Well Deck: N/A	
TEU: N/A	Med: 2 OR & 24 Beds-4 OR&16/45		Stern Ramp: 1

1ST T-LHD



LEGACY

Length: 844 ft	Beam: 106 ft	Draft: 27 ft	Displacement: 42K LT
Per Sqd: 1	Speed: ~20 knots		Range
	~9,500 nm		
Crew: 285	Stand Det: 23	MAGTF: 1,656	NSE: ~670 Berths: 2,946
A/C Stow: 42	A/C Op Spots: 9	JP-5: 607 K gal	Water:400K Gal/200K Gal Per Day
Sqft: 24, 012	CuFt: 145, 000	Well Deck: 3 LCAC	
TEU: N/A	Med: 6 OR & 60 Beds		Stern Ramp: 72 ST

2 T-ANK



NEW BUILD
MODIFIED DESIGN

Length: 950 ft	Beam: 106 ft	Draft: 34 ft	Displacement: ~55K LT
Per Sqd: 3	Speed: ~20 knots		Range
~9,500 nm			
Crew: 30	Stand Det: 48	MAGTF: 705	NSE: ~62 Berths: ~845
A/C Stow: 0	A/C Op Spots: 2/4	JP-5: 380.4K gal	Water: 33.5K gal/24K gal Per day
Sqft: 260, 799	CuFt: 51,682	Well Deck: N/A	

Artist Rendition/Notional Configuration
FLO/FLO Technology focused

3 MLP

NEW BUILD
/DESIGN



Length: TBD	Beam: TBD	Draft: TBD	Displacement: TBD
Per Sqd: 3	Speed: ~20 knots		Range
~9,500 nm			
Crew: 64	Stand Det: 10	MAGTF: 594	NSE: ~128 Berths: 1,458
A/C Stow: 0	A/C Op Spots: 1	JP-5:~1.2 Mil gal	Water:~168K Gal/TBD gal Per day
Sqft: ~11,253	CuFt: ~935		Mission Deck: 6 (LCAC)
TEU: N/A	Med: Sick Call		Artist Rendition/Notional Configuration

3 T-AKE

NEW BUILD
MODIFIED DESIGN



Length: 689 ft	Beam: 105 ft	Draft: 29 ft	Displacement: 39K LT
Per Sqd: 3	Speed: ~20 knots		Range
~9,500 nm			
Crew: 123	Stand Det: 6	MAGTF: ~10	NSE: ~55 Berths: 197
A/C Stow: 1	A/C Op Spots: 1	JP-5: 1.3 Mil gal	Water: 52.8K Gal/28K gal Per day
Sqft: N/A	CuFt: 1,108,592		Well Deck: N/A
N/A	Med: Sick Call		Stern Ramp: N/A

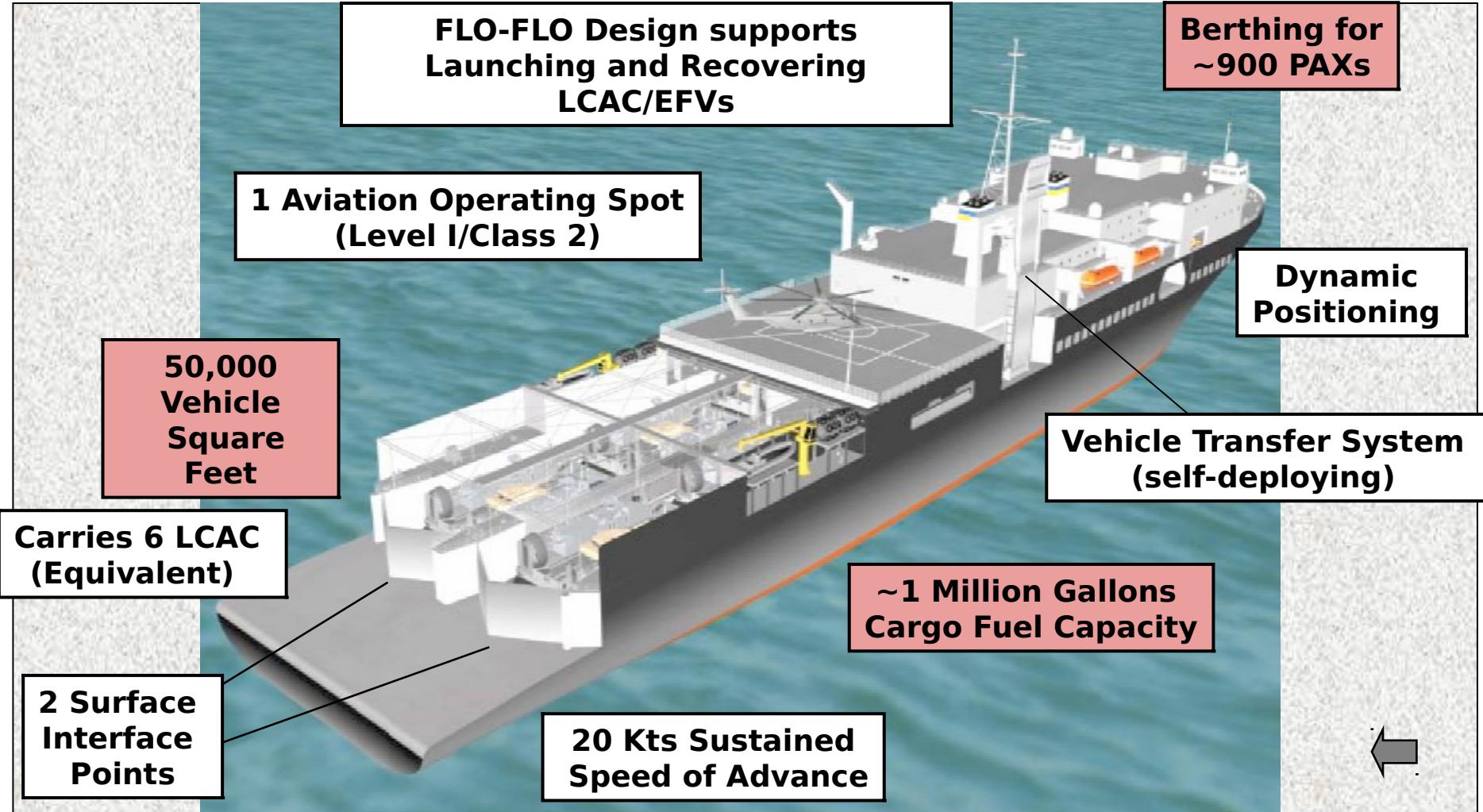
3 T-AKE



Length: 673 ft	Beam: 106 ft	Draft: 34.6 ft	Displacement: ~46K LT
Per Sqd: 2	Speed: 17.7 knots		Range
12,900 nm			
Crew: 30	Stand Det: 16	MAGTF: 71	NSE: ~10 Berths: 127
A/C Stow: 0	A/C Op Spots: 1	JP-5: 1.4 Mil gal	Water:99K Gal/ 25K Gal Per day
Sqft: 152,185	CuFt: N/A		Well Deck: N/A



Notional MPF(F) MLP

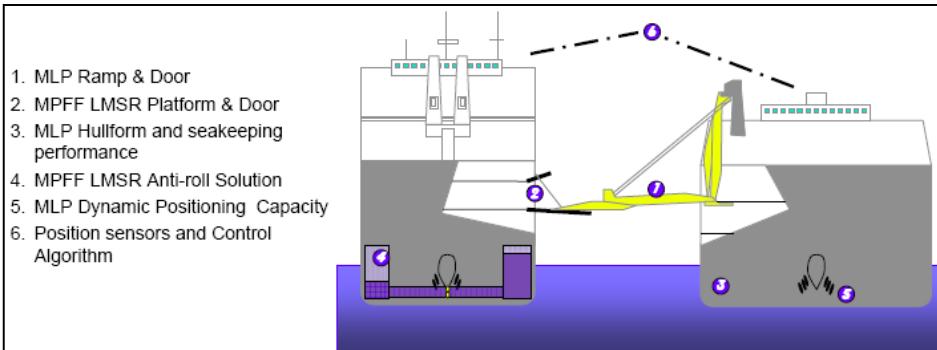


ional Concept - Configuration & Detail Design to be Completed by Shipy

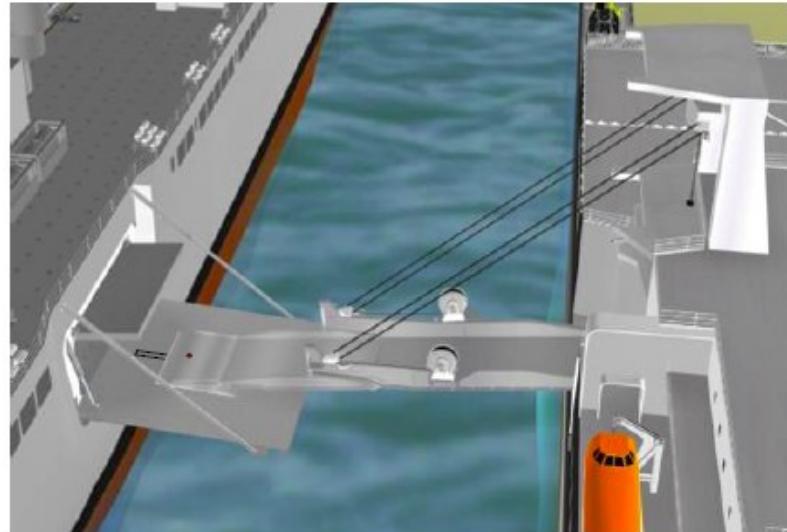


Vehicle Transfer System (VTS)

VTS is the critical new technology that enables surface movement



The MLP Hullform³, MPF(F) LMSR Anti-Roll Tank⁴, MLP Dynamic Positioning System⁵ and Position Sensors⁶ work together to minimize relative motions in seas
In turn, the MLP Ramp¹ and the MPF(F) LMSR Platform² will accommodate these relative motions in seas, in order for vehicles to transfer safely



- **Primary system to transfer vehicles and personnel from the LMSRs to the MLPs underway**
- **Dynamic positioning (DP) of MLP to LMSR while underway**
- **1 VTS per MLP (no redundancy)**
- **24 hour ship transfer (notional) period through NATO SS3**



MPF(F) R&D Program

At-Sea Test



Alongside operations (also called skin-to-skin) permits the USNS Red Cloud to lower the ramp and transfer vehicles to the Dockwise Mighty Servant 3, for further loading onto LCACs. This simulates the assembly and offload of up to 1/3 of a surface Battalion Landing Team.



Joint High Speed Vessel (JHSV)



JHSV Capabilities & Characteristics

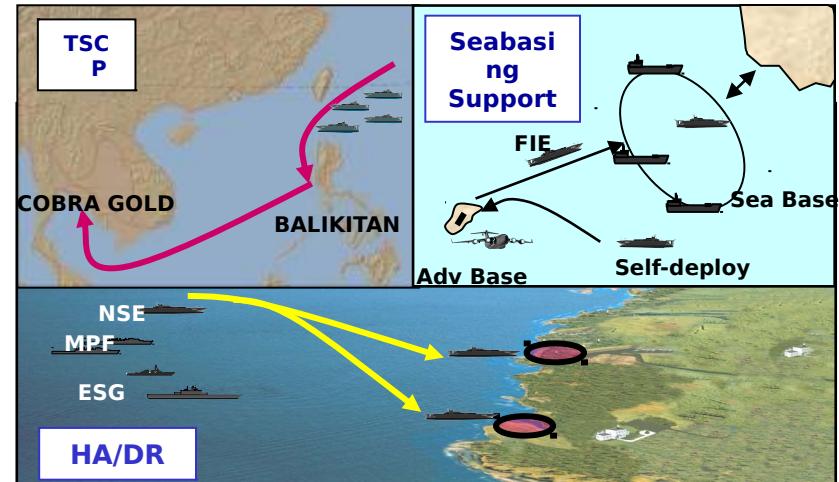
- Shallow draft (< 15'), high speed (> 35 kts loaded)
 - Ability to enter small, austere/ degraded ports unassisted
- Self-deploying between theaters
- 600-700 ST payload, 1200 NM range, 35 kts, Sea State 3
 - Smaller payloads = greater range, larger payloads = less range
- Seating for 312 Marines (Co (rein)); berthing for 104 Marines
- 20-22,000 sqft mission deck/cargo bay (M1A2, MTVR compatible)
- Slewing ramp (astern to 40 degrees forward)
- Level I, Class 2 flight deck for H-60s, H-46s, UH/AH-1 helicopters
 - Fuel only, no services
- 20 ST crane for TEU movement, small boat launch & recovery



JHSV Quantity and Basing

- 8 JHSVs funded (5 Army, 3 Navy), 2 addl USN JHSVs in PR09
- **Quantity funded does not equal quantity required**
- Acquisition objective TBD by MS B (Aug '08)
 - PACOM, AoA, MCCDC studies suggest 16 JHSVs needed across DOD
- **7 JHSV equivalents meet USMC requirements**
 - Based on MARFOR TSCP, GWOT, intra-theater lift requirements
 - Requirement quantified in "vessel days per year" v. specific # of JHSVs
 - Assumes 180 days operational availability (Ao) per year per JHSV
 - Does not explore overlap between USN, USMC requirements
- Notional basing scheme (JHSVs swing between theaters as needed)
 - PACOM = 3 (Hawaii, Guam, Okinawa)
 - CENTCOM = 2 (Bahrain)
 - EUCOM = 1 (RMR)
 - CONUS = 1 (Norfolk)

USMC JHSV Missions (The "Intra-Theater Connector")





Joint Maritime Assault Connector (JMAC)



Capabilities

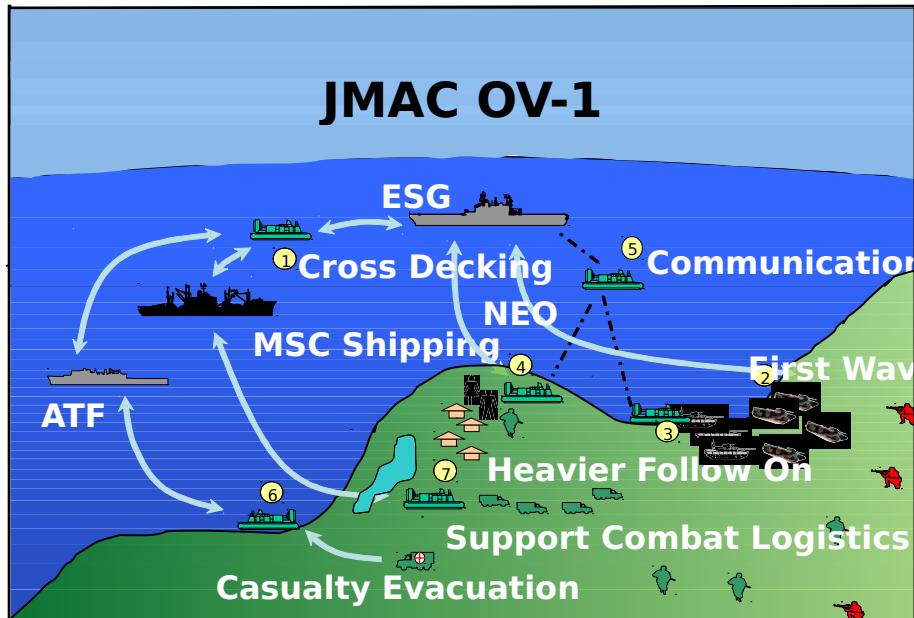
- High Speed, Over-The-Beach, Ship-To-Shore Amphibious Capability to Lift All Equipment Organic to the Ground Elements of a Marine Air/Ground Task Force
- Ability to Operate independent of tides, water depth, underwater obstacles, in NATO SS 3-4 at 25 nm or less
- Designed to address 2 gaps:
 - Conduct movement
 - Prepare for movement

Requirements

- 2015 timeframe - significant gaps in brigade-sized maneuver concurrent with retirement of the Landing Craft, Air Cushion (LCAC) and Landing Craft, Utility (LCU) as they reach the end of operational service life
 - 72 LCAC required to meet 3.0 MEB and required operational capability/ projected operational environment
 - 72 LCAC required to meet COCOM OPLAN requirement of 60 operational craft
 - LCAC fleet falls below required 72 LCAC in 2014

Materiel Alternatives

- LCAC SLEP
- Standard Conventional 73 Short Ton (SC-73)
- Large Conventional 146 Short Ton (LC-146))





Joint Seabasing Experimentation

Science & Technology and Research &

Development



**Skin-to-Skin
Transfer**



High Capacity UNREP



Selective Offload



**Stabilized
Cranes**



**Joint Modular
Intermodal
Container (JMIC)**



**Mobile Landing
Platform**

Interface



Automated Cargo Handling

**At-Sea Arrival, Assembly, Employment,
Sustainment**



Seabasing Integration Division Points Of Contact



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Questions?

***Joint Force Enabler
In Area-Denial and Anti-Access Environments***



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